Sarix® IBP Series Indoor and Environmental Bullets
UP TO 5 MEGAPIXEL, H.264, D/N IP BULLETS WITH INTEGRATED LENS

Product Features

- Up to 5 megapixel (MPx) resolution
- Up to 30 images per second (ips) at 3 MPx
- Autofocus motorized remote zoom lens
- Operating temperature up to 55°C (131°F)
- Up to 64 GB edge storage with Micro SD card
- Motion detection and camera sabotage detection
- Power over Ethernet (PoE) Class 3, 24 VAC ± 10%
- Pelco Smart Compression Technology
- Vandal resistant to IK10, IP66 ingress protection
- Compatible with Pelco and third-party video systems
- ONVIF Profile S, Profile G, and Profile Q conformant
- Full 3-year warranty and support

Sarix Professional Range

Powerful, versatile, and affordable, the **Sarix® Professional (P)** range cameras pack the most popular features and functionality of Sarix technology into a wide range of indoor and outdoor options, including bullet cameras and mini domes. There are also indoor-only options such as a vandal resistant wedge and micro dome. Mix and match the performance options and form factor you need for almost any lighting condition, environment, and application.

Camera

Within the **Sarix Professional** range, the **Sarix IBP Series** indoor and outdoor bullet cameras feature a remote zoom lens for wide angle or long range surveillance needs. Autofocus capability ensures the camera can be automatically refocused when needed. Additionally, the **Sarix IBP Series** features advanced color science, a mechanical IR cut filter, and advanced integrated adaptive IR illumination (environmental models) for increased sensitivity in low-light installations.

Video

Sarix Professional range cameras support up to two simultaneous video streams and a third service stream. The two streams can be compressed with efficient H.264 High or Main profiles or MJPEG formats. The streams can be configured to a variety of frame rates and bit rates to optimize image quality with bandwidth and storage efficiency.

Edge Storage

Sarix Professional range bullet cameras feature onboard edge storage with a micro SD card. Video clips of varying lengths can be stored to the card upon alarm, or video can be written continuously to the SD card in the case of network outage. Video can be retrieved from the card through the FTP protocol or by using an ONVIF Profile G enabled client.

Sarix Professional range cameras feature simple motion detection algorithms allowing the camera to record or send an alarm when there is motion detected in a selected zone or with the entire scene. A camera sabotage alarm is triggered if the lens is obstructed or when the camera is repositioned.

Open and Integrated

Sarix Professional range cameras seamlessly connect to Pelco video management systems such as VideoXpert™, Endura® version 2.0 (or later), and Digital Sentry® version 7.3 (or later). **Sarix Professional** range cameras integrate with major third-party systems through the open Pelco API or the ONVIF Profile S, Profile G, and Profile Q standards.

Standard Web Interface

Pelco cameras use a standard Web browser interface for easy remote setup and administration. Controls are optimized for convenient one-step camera configuration for features including color, exposure, flicker control, and streaming.

PELCO
by **Schneider** Electric

Onvif | SGQ

International Standards
Organization Registered Firm;
ISO 9001 Quality System

ISO 9001 CERTIFIED

CAMERA

Imaging Device

MPx	Sensor	Maximum Resolution
5 MPx	1/1.8-inch	2592 x 1944 (5.0 MPx)
3 MPx	1/2.8-inch	2048 x 1536 (3.0 MPx)
2 MPx	1/2.8-inch	1920 x 1080 (2.0 MPx)
1 MPx	1/3-inch	1280 x 960 (1.2 MPx)

Imager Type	CMOS	Wide Dynamic Range	75 dB, 90 dB (Backlight Compensation On)
Imager Readout	Progressive scan	White Balance Range	2,000° to 10,000°K
Electronic Shutter Range	1/5 ~ 1/30,000 sec (1 MPx and 5 MPx)	3D Digital Noise Reduction	Yes (ON/OFF selectable)
	1/5 ~ 1/25,000 sec (2 MPx)	Signal to Noise Ratio	≥50 dB
	1/5 ~ 1/45,000 sec (3 MPx)		

Minimum Illumination

MPx	Sensitivity	Color		Mono - with IR Illumination	
		33 ms	200 ms	33 ms	200 ms
5 MPx	f/1.2	0.30 lux	0.02 lux	0.00 lux	0.00 lux
3 MPx	f/1.2	0.25 lux	0.02 lux	0.00 lux	0.00 lux
2 MPx	f/1.2	0.25 lux	0.02 lux	0.00 lux	0.00 lux
1 MPx	f/1.4	0.05 lux	0.02 lux	0.00 lux	0.00 lux

Mechanical IR Cut Filter	Yes (AUTO/MANUAL selectable), with different set points on lux
IR Illumination	Adaptive IR up to 35 m; auto ON in night mode, or OFF

LENS

Lens type	Built-in; varifocal
Focal Length	f/1.4, 3 ~ 10.5 mm, 9 ~ 22 mm, or 12 ~ 40 mm
Focus	Autofocus, motorized
Zoom	Remote
Auto Iris Type	DC drive lens

Field of View*

Lens	Angle of View	1 MPx	2 MPx	3 MPx	5 MPx
3 to 10.5 mm	Diagonal	112°~ 33°	120°~ 35°	115°~ 34°	116°~ 46°
	Horizontal	86°~ 27°	102°~ 31°	98°~ 30°	90°~ 37°
	Vertical	63°~ 19°	54°~ 17°	52°~ 16°	67°~ 27°
9 to 22 mm	Diagonal	38.7°~ 16°	41.4°~ 17.1°	41.5°~ 17.1°	N/A
	Horizontal	30.6°~ 12.8°	35.8°~ 14.9°	32.7°~ 13.7°	N/A
	Vertical	22.7°~ 9.6°	19.7°~ 8.4°	24.3°~ 10.3°	N/A
12 to 40 mm	Diagonal	28.4°~ 10°	30.4°~ 10.3°	30°~ 10°	N/A
	Horizontal	22.6°~ 8°	26°~ 9°	23.8°~ 8.3°	N/A
	Vertical	16.7°~ 5.9°	14.8°~ 5.2°	17.8°~ 6.2°	N/A

*Field of view may vary with changes in resolution settings.

TECHNICAL SPECIFICATIONS

VIDEO

Video Streams   Up to 2 simultaneous streams, plus service stream; the secondary stream is variable based on the setup of the primary stream

Text Overlay   Camera name, time, date, and customizable text with multiple languages supported

Available Resolutions

MPx	Width	Height	Aspect Ratio
5.0	2592	1944	4:3
3.1	2048	1536	4:3
2.1	1920	1080	16:9
1.2	1280	960	4:3
0.9	1280	720	16:9
0.5	800	600	4:3
0.3	640	480	4:3
0.1	320	240	4:3
0.1	320	180	16:9

Frame Rates

MPx	Images per Second (ips)
5 MPx	15, 12.5, 10, 7.5, 5, 3, 2, 1
3 MPx	30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3,2, 1
2 MPx	30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1
1 MPx	30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

Note: Available frame rates are selectable for each independent stream depending on the coding, resolution, and stream configuration.

Video Encoding   H.264 High, Main, and Baseline profiles; and MJPEG

Bit Rate Control   Constant bit rate (CBR), constrained variable bit rate (CVBR) with configurable maximum value

Corridor Mode   Electronic image flip and mirror: 180°, 90° and 270° (H.264 only)

Service Stream   640 x 480 or 640 x 352; 2 ips, JPEG

Window Blanking   4 configurable windows

PELCO'S SMART COMPRESSION TECHNOLOGY

Pelco's Smart Compression Technology lowers bandwidth and storage requirements by up to 70%. Our technology allows the user to make intelligent decisions regarding storage savings and image quality.

Pelco's Smart Compression Technology dynamically analyzes motion occurring within live video in real-time, to intelligently compress the information you don't need, while retaining details with clear quality in the areas that are important in the scene. By enabling Dynamic GOP, an added feature of Smart Compression, the number of I-frames are automatically reduced in scenes with low motion. Based on the complexity of scenes and motion occurring, such as a store room that has limited entry and exit, up to 70% bandwidth savings can be achieved.

AUDIO

Streaming   Bi-directional

Input   Line in/terminal block

Encoding   G.711 A-law/G.711 U-law

TECHNICAL SPECIFICATIONS

GENERAL

Construction	Die cast aluminum, cylindrical	
Ingress Protection	IP66	
	Type 4X	
Vandal Resistance	IK10 (20J impact) per IEC 62262	
Finish	RAL 7047 (environmental)	
	RAL 9003 (indoor)	
	Indoor	Outdoor
Unit Weight	2.0 kg (4.42 lb)	2.82 kg (6.21 lb)
Shipping Weight	2.09 kg (4.6 lb)	2.98 kg (6.57 lb)

ELECTRICAL

Network Port — RJ-45 connector for 100Base-TX

Power Input — PoE (IEEE 802.3af, Class 3); 24 VAC± 10%, 18 to 32 VAC range, 12 VDC± 10%

Power Consumption
    Indoor — < 6 W
    Outdoor — < 11.50 W

Local Storage — Up to 64 GB on Micro SDHC or SDXC card

Alarm
    Input — 1
    Output — 1; PhotoMOS™ relay (30 V, 1 A)
    Triggers — Unsupervised mode that detects switch closures (N.O. and N.C.)

ENVIRONMENTAL

Operating Temperature
    Outdoor — –40° to 55°C (–40° to 131°F)*
    Indoor — –10° to 55°C (14° to 131°F)

Storage Temperature — –40° to 60°C (–40° to 140°F)

Operating Humidity — 15% to 85%, RH condensing

Storage Humidity — 5% to 90%, RH noncondensing

*Thermostatically controlled heating provides ramped heating control between the initial heater on at 15°C (59°F) and full heating mode at –40°C (–40°F).

NETWORK

Supported Protocols — TCP/IP, UDP/IP (Unicast, Multicast IGMP), ICMP, IPv4, IPv6, SNMP v2c/v3, HTTP, HTTPS, SSL, SSH, SMTP, FTP, RTSP, UPnP, DNS, NTP, RTP, RTCP, LDAP (client), QoS, GB28181

Users
    Unicast — 1 administrator, up to 4 viewers
    Multicast — Unlimited users H.264

Security Access — Multiple user access levels with password protection

INTEGRATION

Video Management — VideoXpert;
Endura version 2.0 (or later);
Digital Sentry 7.3 (or later);
Third-party VMS through Pelco API 1.0 and ONVIF Profile S, Profile G, and Profile Q

Mobile Application — Pelco Mobile

Analytics — Simple motion detection and camera sabotage detection

Local Storage — Capture 1-, 5-, or 10-second video clips on camera sabotage, motion detection, or alarm input; record video continuously in the case of network outage with option to overwrite; access video through FTP protocol and ONVIF Profile G

Camera Discovery and Firmware — Discover cameras and upgrade firmware using the Pelco Device Utility 2 version 2.2 or later; cameras discovered and firmware upgrade through Endura Utilities

Web Browser Support — Microsoft® Internet Explorer® 9.0, Apple® Safari® 7.0.6, Mozilla® Firefox® 31.0, Google® Chrome™ 37.0.2062.124 m and later

Multilingual User Interface — English, French, German, Italian, Portuguese, Arabic, Russian, Spanish, Turkish, Korean, Simplified Chinese

CERTIFICATIONS*

- CE - EN 55022 (Class A), EN 50130-4, EN 60950-1
- FCC (Class A) - 47 CFR Part 15
- UL and cUL Listed - UL 60950-1, CAN/CSA-C22.2 No. 60950-1-07
- UL/IEC 60950-22
- ICES-003 (Class A)
- RCM
- KC
- Type 4X and IP66 rated enclosure (outdoor models) when installed properly
- ONVIF Profile S, Profile G, and Profile Q conformant

*At the time of this publication, certifications are pending. Consult the factory or www.pelco.com for the current status of certifications.

MODELS

| Resolution	Lens	Model Number	Description
1 MPx	3 to 10.5 mm	IBP121-1I	Sarix Pro Indoor Bullet
1 MPx	3 to 10.5 mm	IBP121-1R	Sarix Pro IR Environmental Bullet
1 MPx	9 to 22 mm	IBP122-1I	Sarix Pro Indoor Bullet
1 MPx	9 to 22 mm	IBP122-1R	Sarix Pro IR Environmental Bullet
1 MPx	12 to 40 mm	IBP124-1I	Sarix Pro Indoor Bullet
1 MPx	12 to 40 mm	IBP124-1R	Sarix Pro IR Environmental Bullet
2 MPx	3 to 10.5 mm	IBP221-1I	Sarix Pro Indoor Bullet
2 MPx	3 to 10.5 mm	IBP221-1R	Sarix Pro IR Environment Bullet
2 MPx	9 to 22 mm	IBP222-1I	Sarix Pro Indoor Bullet
2 MPx	9 to 22 mm	IBP222-1R	Sarix Pro IR Environmental Bullet
2 MPx	12 to 40 mm	IBP224-1I	Sarix Pro Indoor Bullet
2 MPx	12 to 40 mm	IBP224-1R	Sarix Pro IR Environmental Bullet
3 MPx	3 to 10.5 mm	IBP321-1I	Sarix Pro Indoor Bullet
3 MPx	3 to 10.5 mm	IBP321-1R	Sarix Pro IR Environmental Bullet
3 MPx	9 to 22 mm	IBP322-1I	Sarix Pro Indoor Bullet
3 MPx	9 to 22 mm	IBP322-1R	Sarix Pro IR Environment Bullet
3 MPx	12 to 40 mm	IBP324-1I	Sarix Pro Indoor Bullet
3 MPx	12 to 40 mm	IBP324-1R	Sarix Pro IR Environmental Bullet
5 MPx	3 to 10.5 mm	IBP521-1I	Sarix Pro Indoor Bullet
5 MPx	3 to 10.5 mm	IBP521-1R	Sarix Pro IR Environmental Bullet

VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS

SARIX PRO ENVIRONMENTAL BULLET 3 TO 10.5 MM AND 9 TO 22 MM LENS
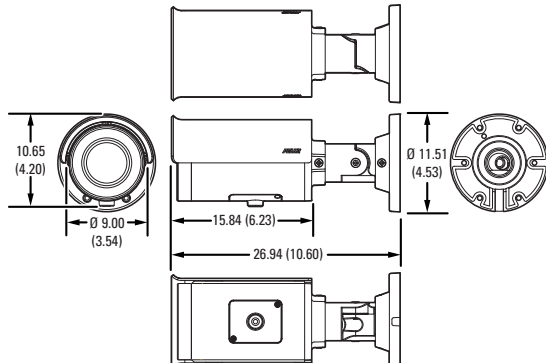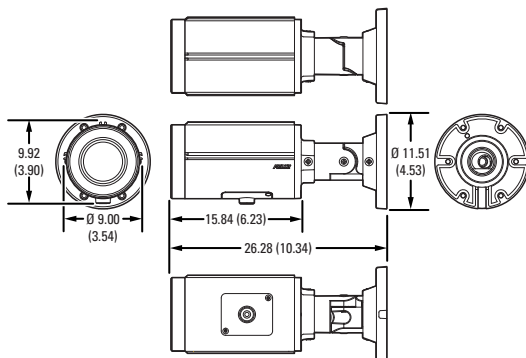

Indoor color: RAL 9003; Outdoor color: RAL 7047

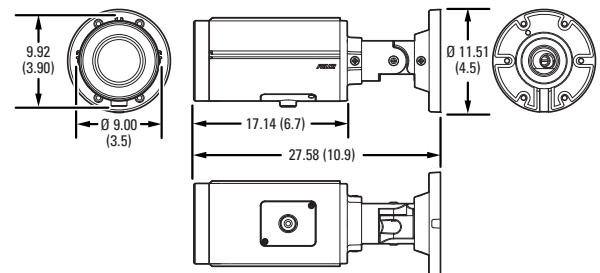**SARIX PRO ENVIRONMENTAL BULLET 12 TO 40 MM LENS**
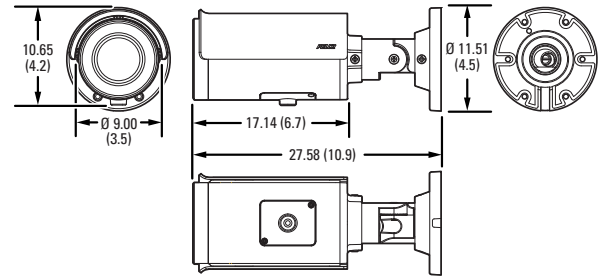
Indoor color: RAL 9003; Outdoor color: RAL 7047

SARIX PRO INDOOR BULLET 3 TO 10.5 MM AND 9 TO 22 MM LENS

Indoor color: RAL 9003; Outdoor color: RAL 7047

SARIX PRO INDOOR BULLET 12 TO 40 MM LENS
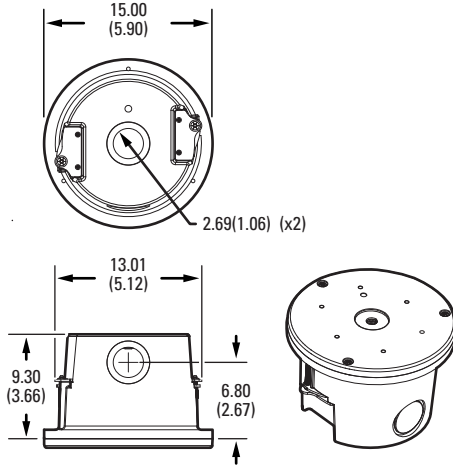

Indoor color: RAL 9003; Outdoor color: RAL 7047

OPTIONAL ACCESSORIES

|	
IBP2BBAP-EI	Environmental in-ceiling back box and adapter plate
IBP2BBAP-ES	Environmental surface mount back box and adapter plate
IBP2-PLMT	Environmental pole mount

VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS

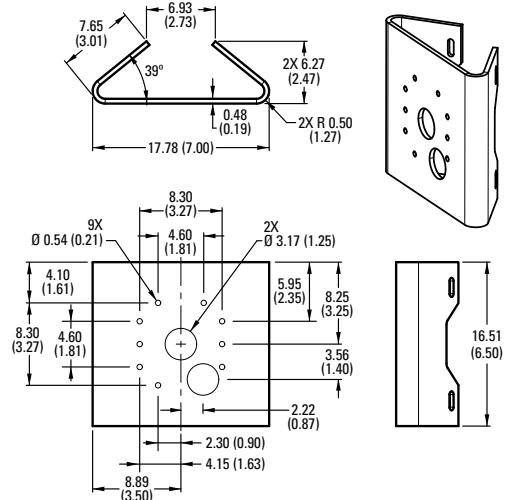### IBP2BBAP-EI ENVIRONMENTAL IN-CEILING MOUNT BACK BOX AND ADAPTER PLATE

15.00 (5.90)
2.69(1.06) (x2)
13.01 (5.12)
9.30 (3.66)
6.80 (2.67)

Indoor color: RAL 9003; Outdoor color: RAL 7047

IBP2BBAP-ES ENVIRONMENTAL SURFACE MOUNT BACK BOX AND ADAPTER PLATE

15.52 (6.11)
6.80 (2.67)
0.80 (0.31)
2.73 (1.07)
5.00 (1.96)
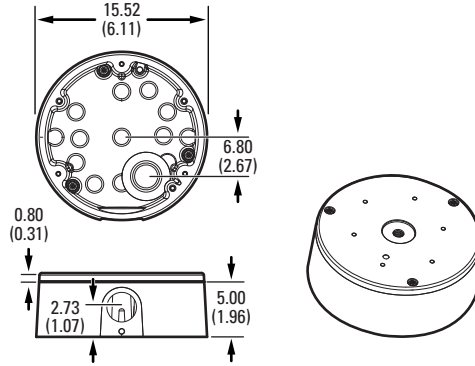
Indoor color: RAL 9003; Outdoor color: RAL 7047

IBP2-PLMT ENVIRONMENTAL POLE MOUNT

7.65 (3.01)
6.93 (2.73)
39°
2X 6.27 (2.47)
0.48 (0.19)
2X R 0.50 (1.27)
17.78 (7.00)

8.30 (3.27)
9X Ø 0.54 (0.21)
4.60 (1.81)
2X Ø 3.17 (1.25)
4.10 (1.61)
5.95 (2.35)
8.25 (3.25)
8.30 (3.27)
4.60 (1.81)
3.56 (1.40)
2.22 (0.87)
2.30 (0.90)
4.15 (1.63)
8.89 (3.50)
16.51 (6.50)

Indoor color: RAL 9003; Outdoor color: RAL 7047

HOW TO ORDER

Example: **IMP321-1ES**

IMP 3 2 1 — 1 E S

Sarix = **I**

FORM FACTOR
Bullet = **B**
Mini Dome = **M**
Box = **X**
Micro Dome = **J**
Wedge VR Dome = **W**

RANGE
Professional = **P**

RESOLUTION
5MP = **5**   2MP = **2**
3MP = **3**   1.2MP = **1**

GENERATION
2 = 2nd Generation

LENS
4 = 12mm to 40mm (Bullets only)
2 = 9mm to 22mm (Bullets only)
1 = 3mm to 10.5mm / **1** = 2.8mm *(Fixed in Micro Dome)*

1 = Clear Dome

ENVIRONMENT
E = Environmental
R = Environmental with IR
I = Indoor

S = Surface Mount (Domes only)